

ABSTRACT

The networked electronic ordnance system connects a number of pyrotechnic devices to a bus controller using lighter and less voluminous cabling, in a more efficient network architecture, than previously possible. Each pyrotechnic device contains an initiator, which includes a pyrotechnic assembly and an electronics assembly. One or more pyrotechnic devices each contain a logic device having a unique identifier. The pyrotechnic devices are individually controlled by the bus controller by addressing the unique identifier of each logic device. Each pyrotechnic device preferably includes an energy reserve capacitor which stores firing energy upon arming. Both digital and analog fire control conditions are provided before an armed pyrotechnic device can be fired. A plurality of initiators and/or other components of the system may be packaged together on a single substrate and networked together via that substrate.